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# Arterial wall of SMCRT mouse

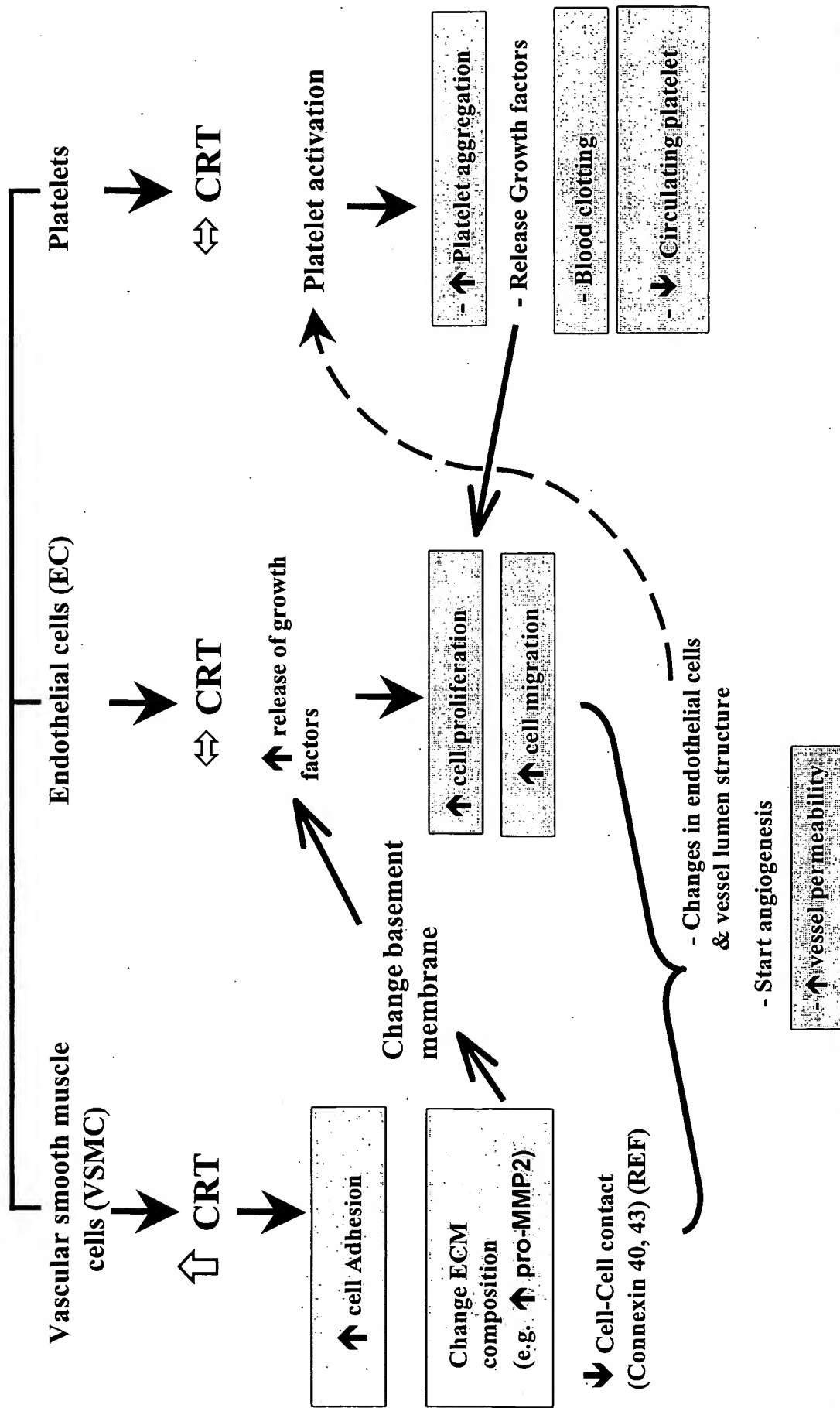
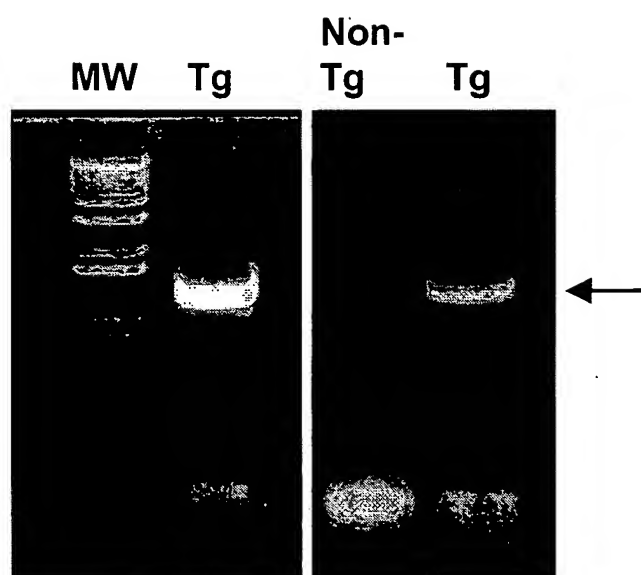
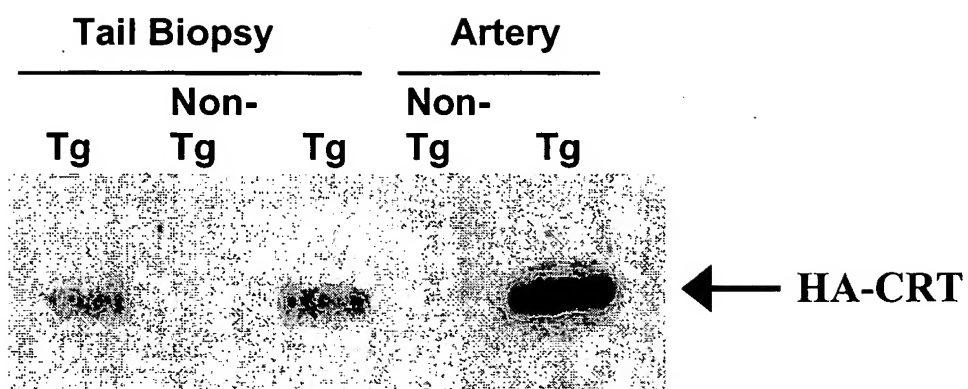


Fig. 1.

**A**

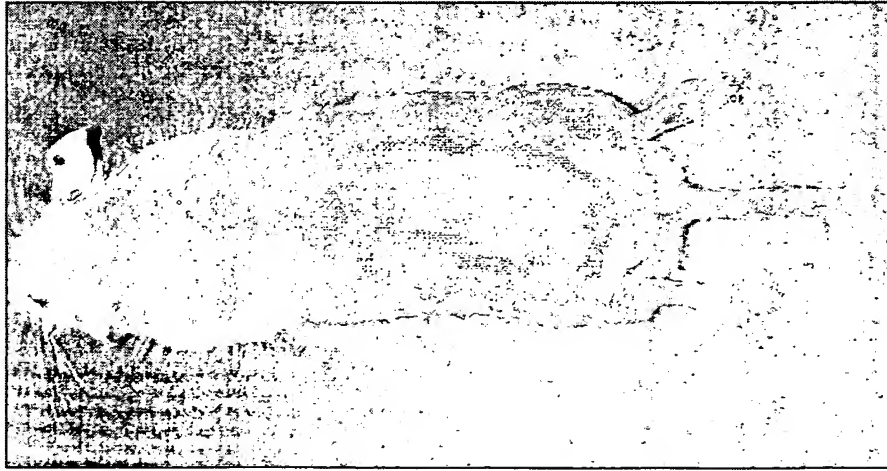


**B**

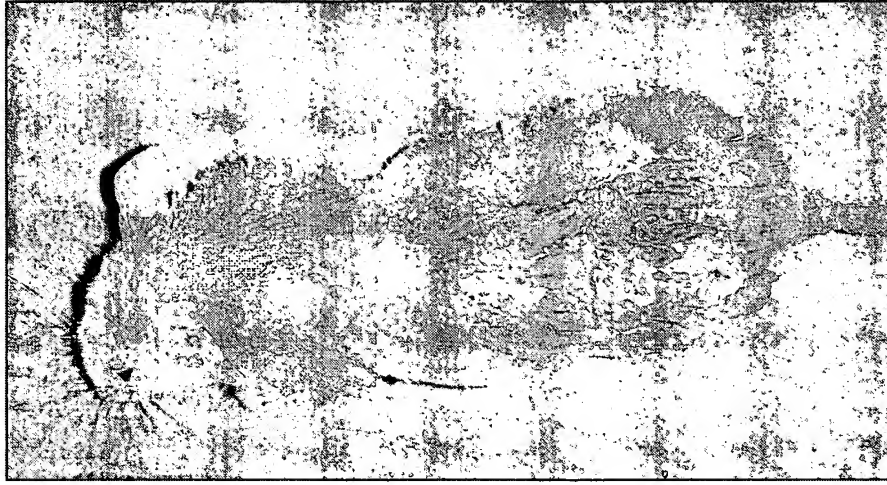


**Fig. 2.**

A



B



C



Fig. 3.

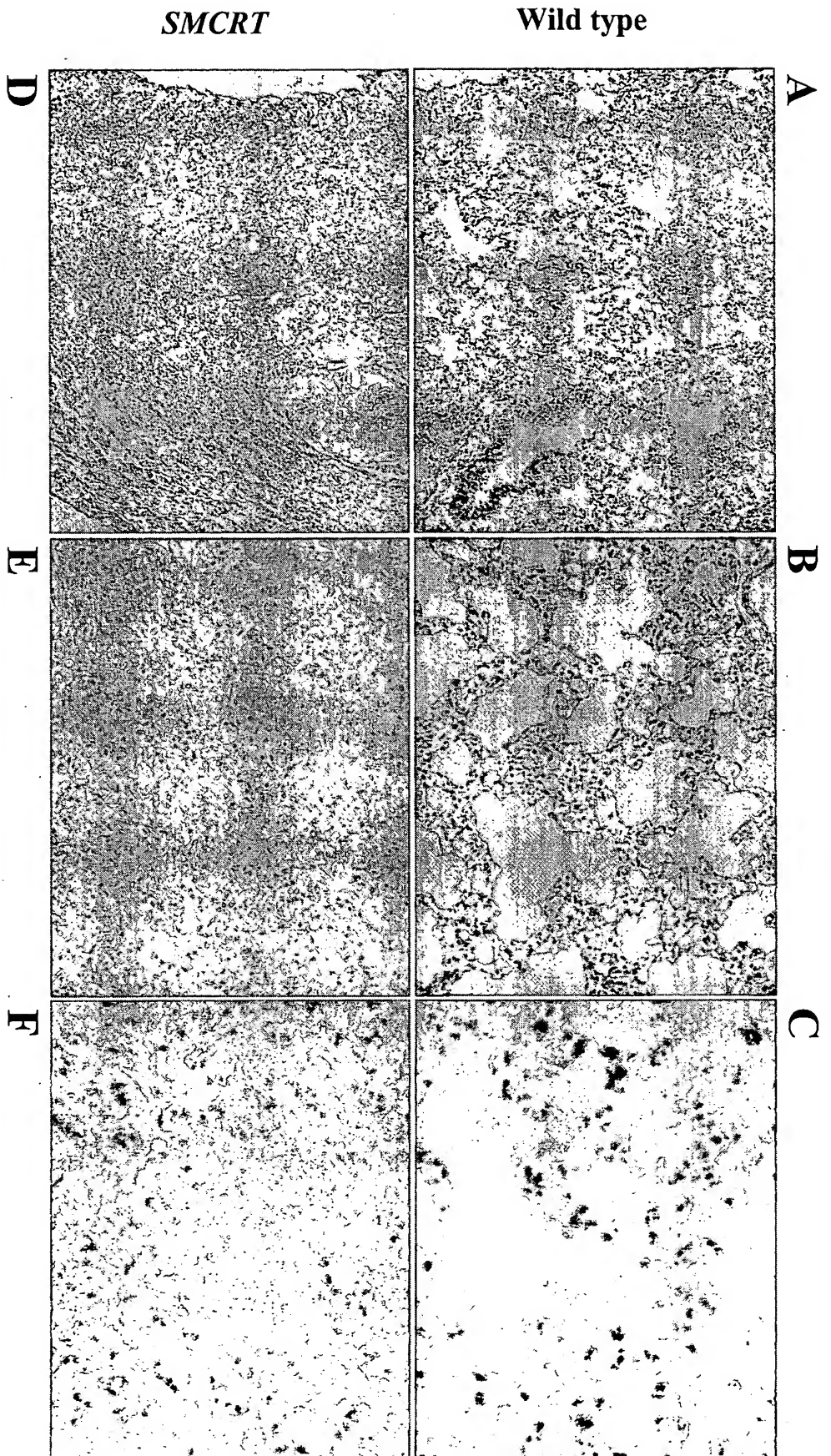
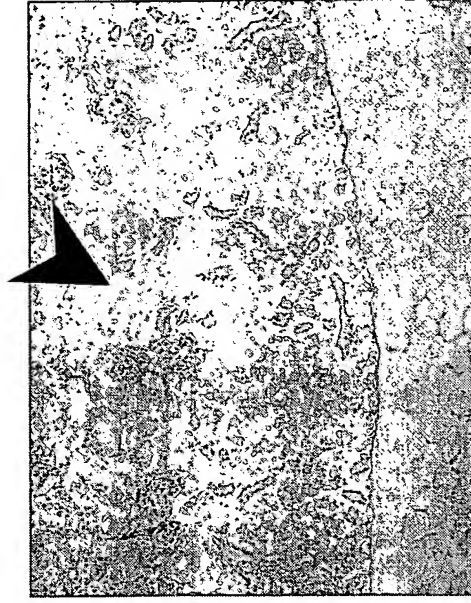


Fig. 4.

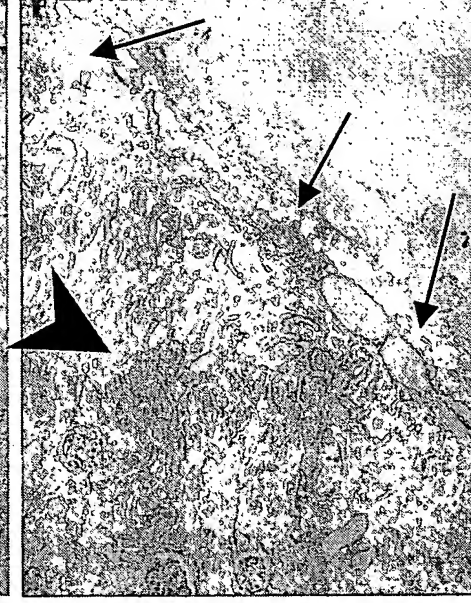
**A. *SMCRT* Kidney**



**B. Wild type**



**C. *SMCRT***



**Fig. 5.**



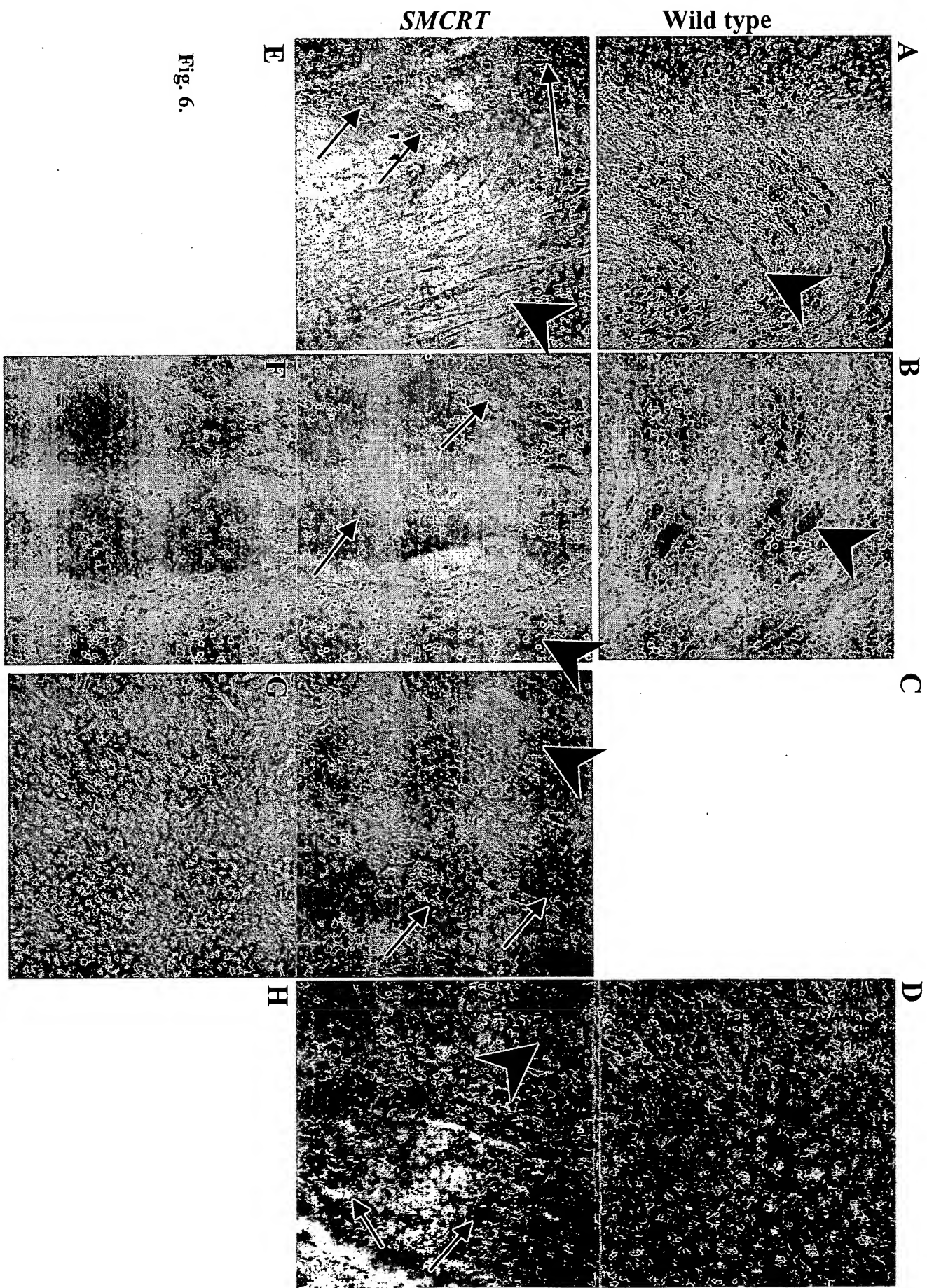
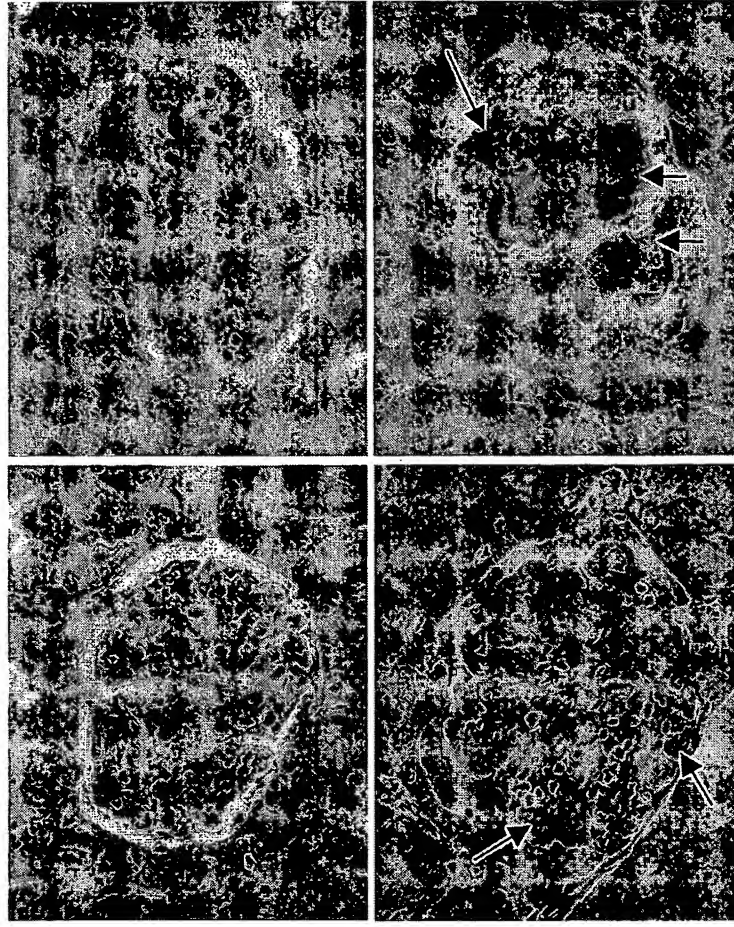


Fig. 6.



**A.** Wild Type

**B.** *SMCRT*

**Fig. 7.**



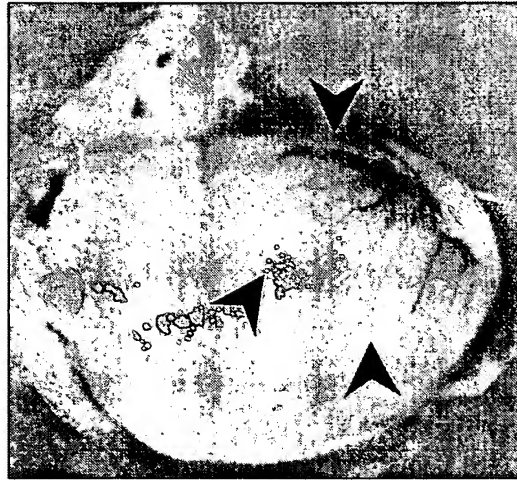
Wild type

**A**



Transgenic  
*SMCRT*

**B**

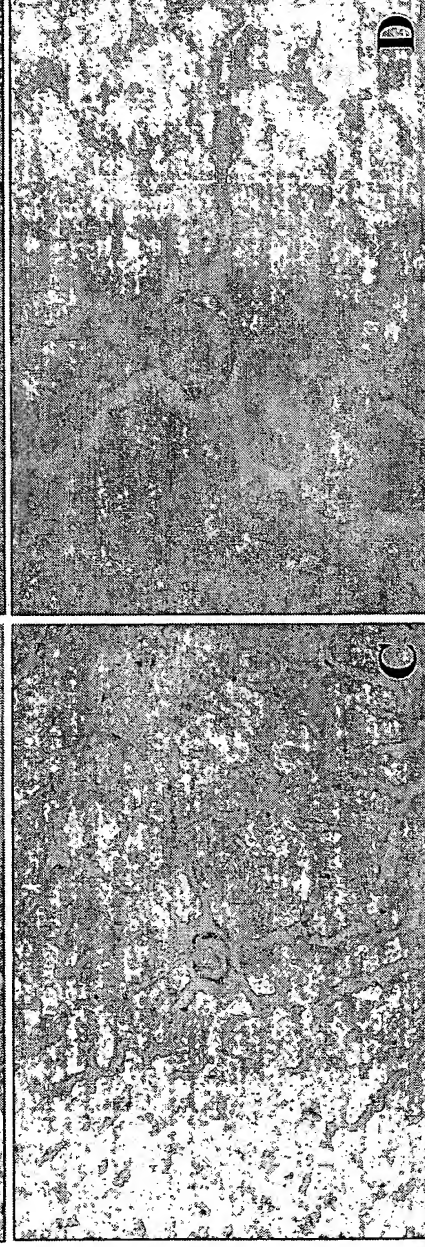
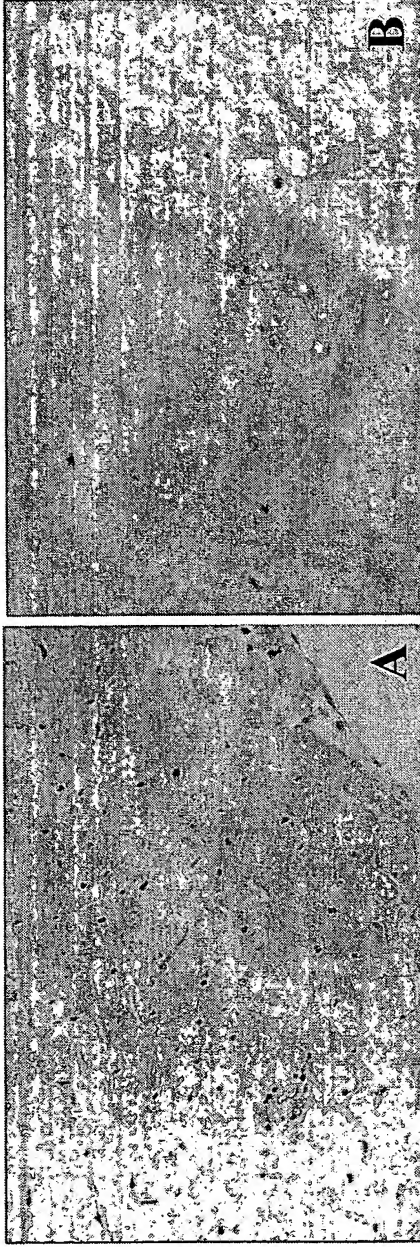


**C**

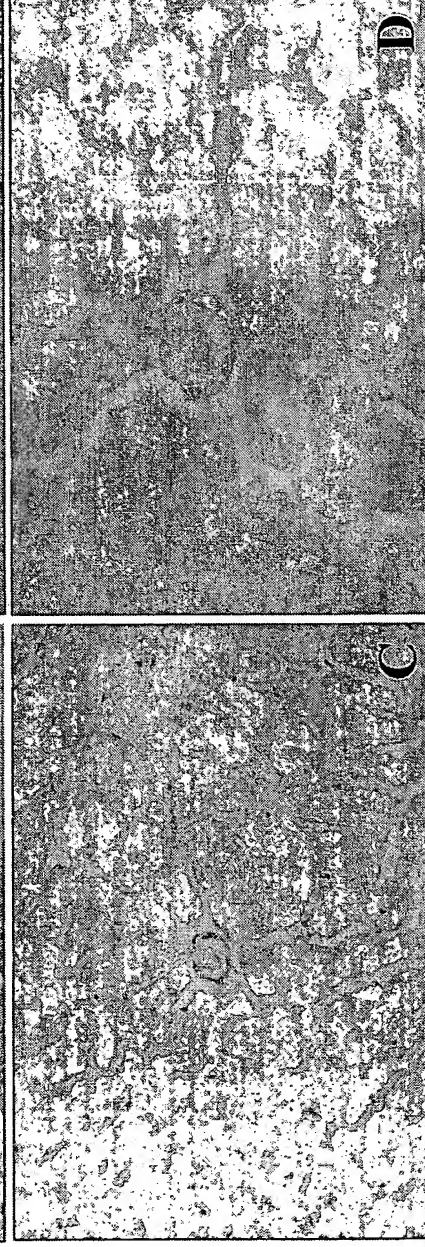


Fig. 8.

**Wild type**



**SMCRT**



**Fig. 9.**

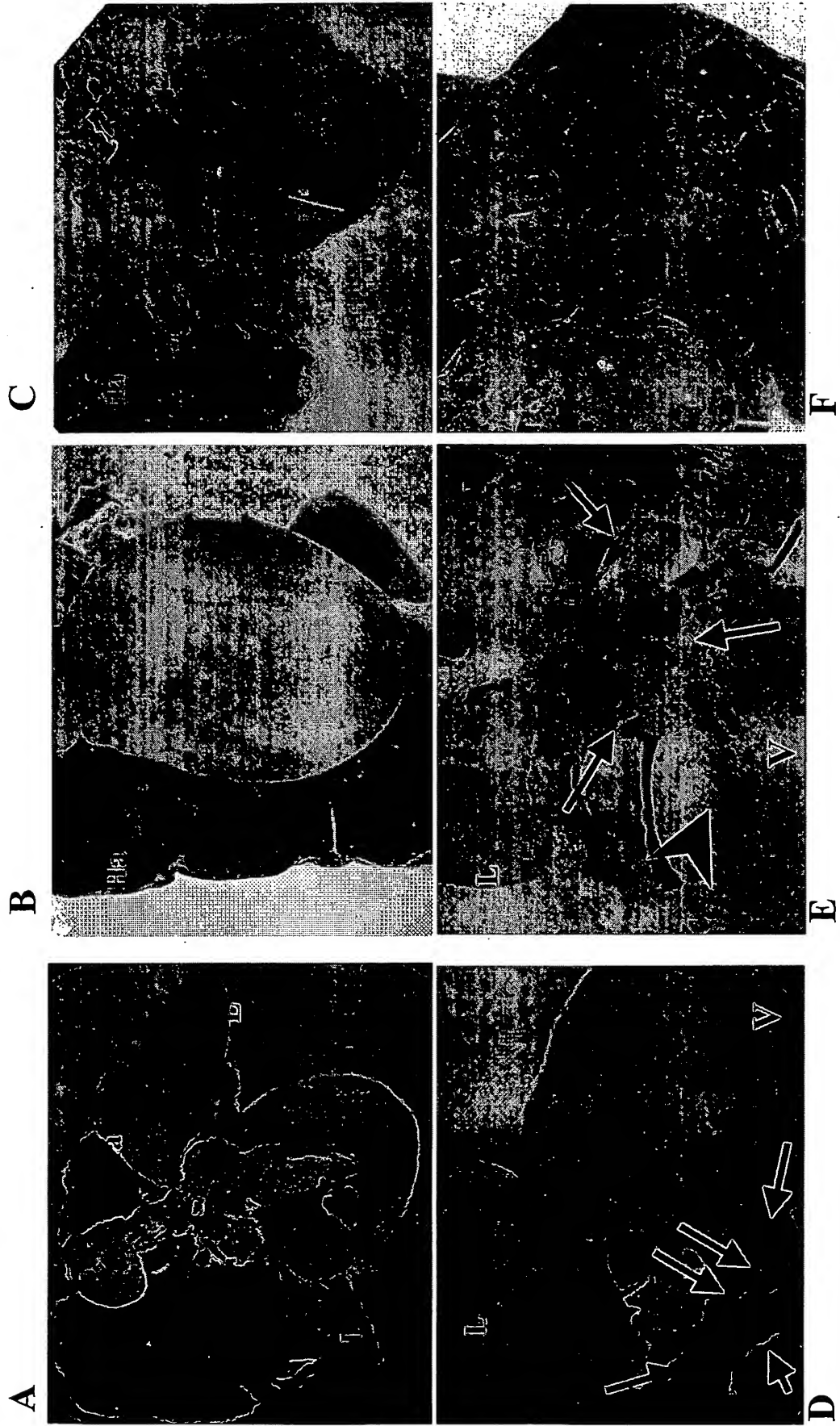


Fig. 10.

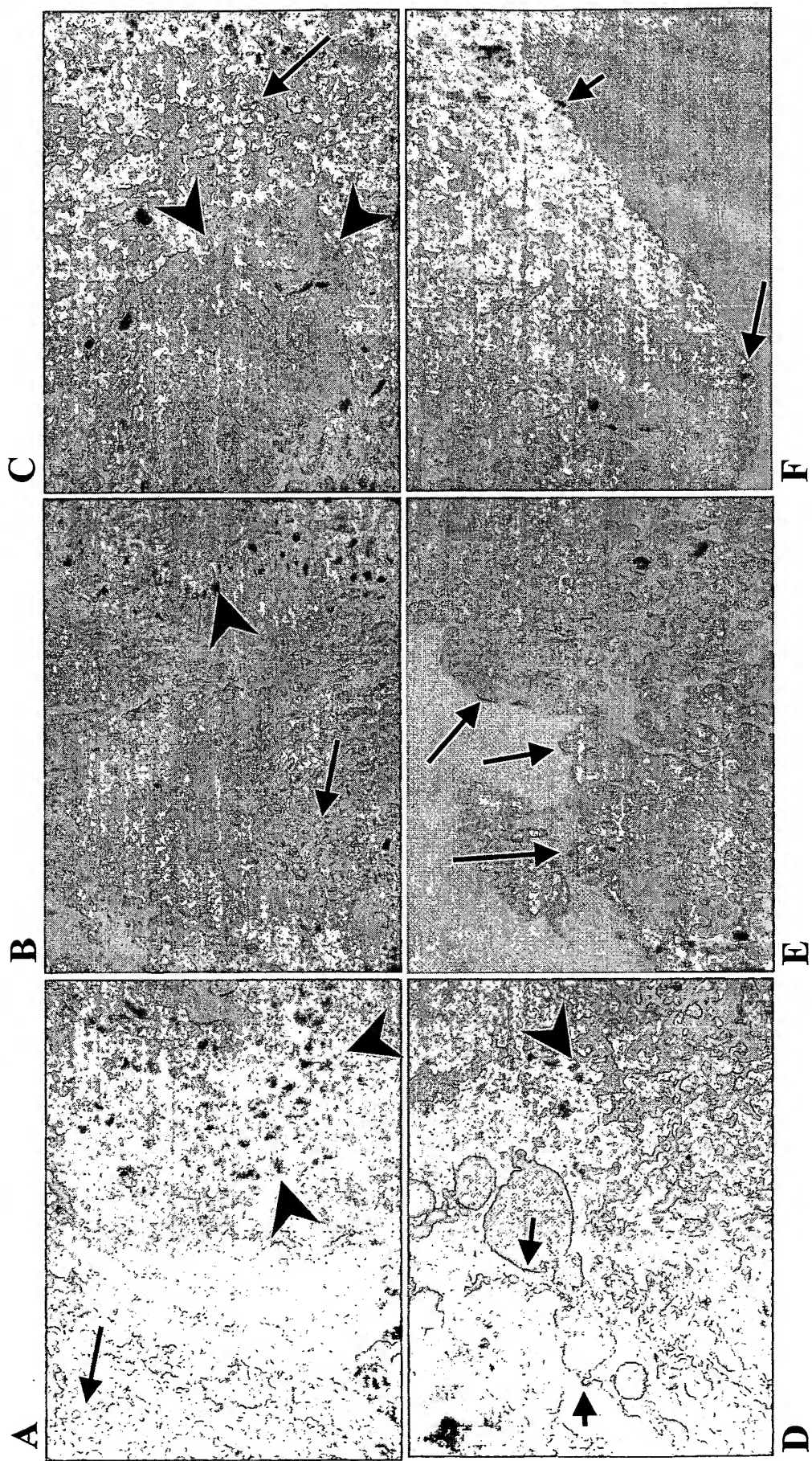


Fig. 11.



Coronary artery

Renal arteriole

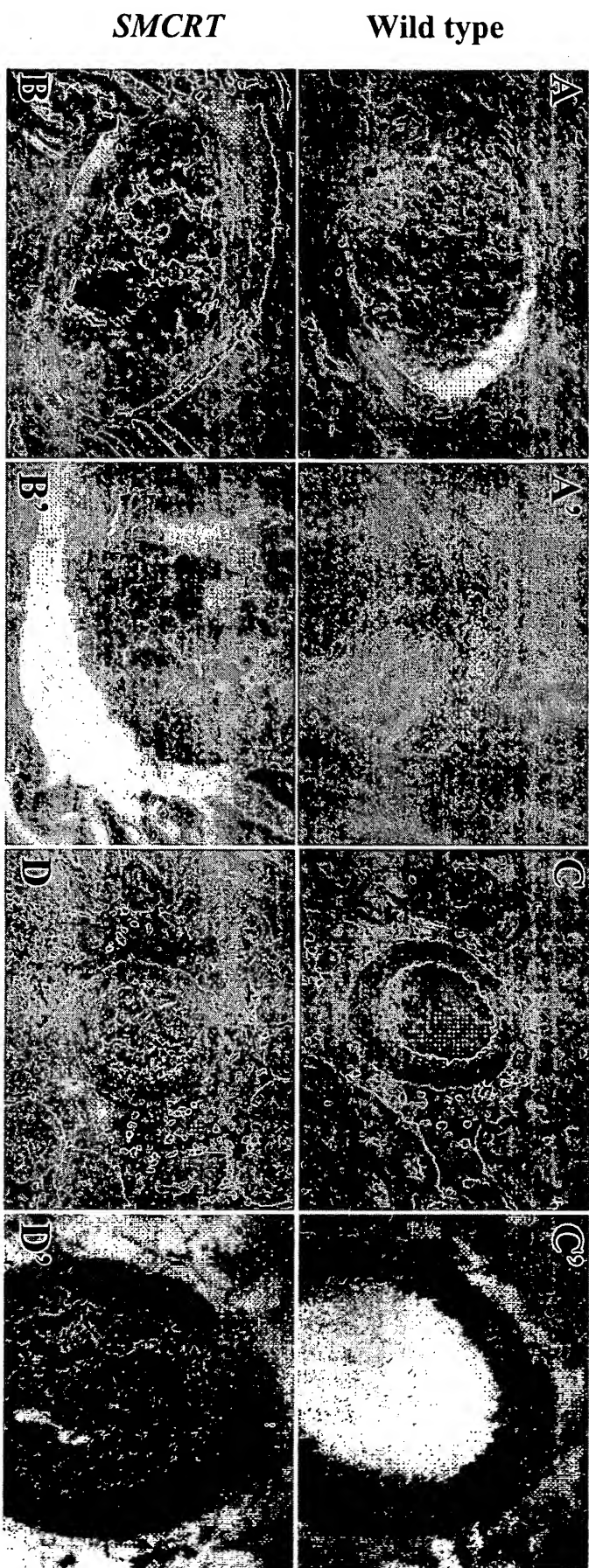
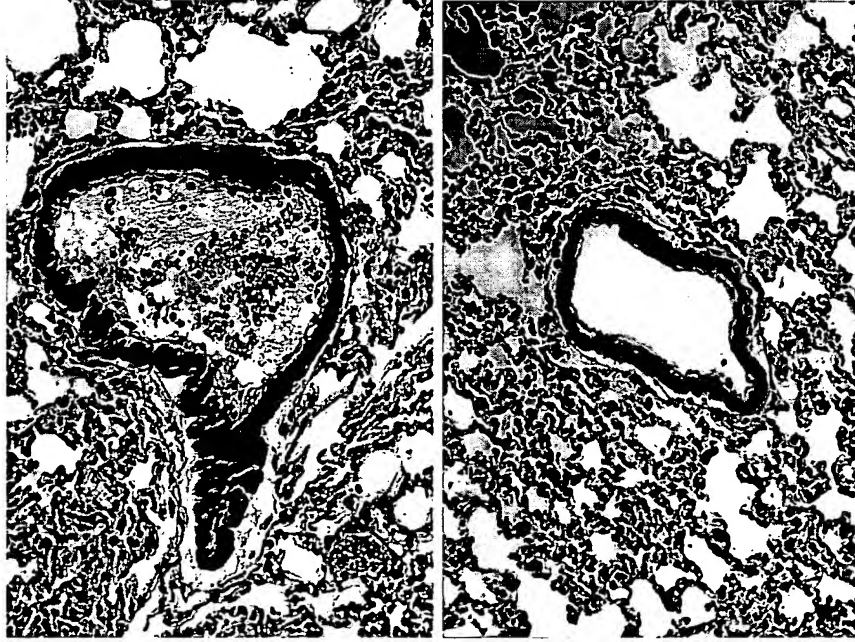


Fig. 12.

A. Wild type



B. SMCRT

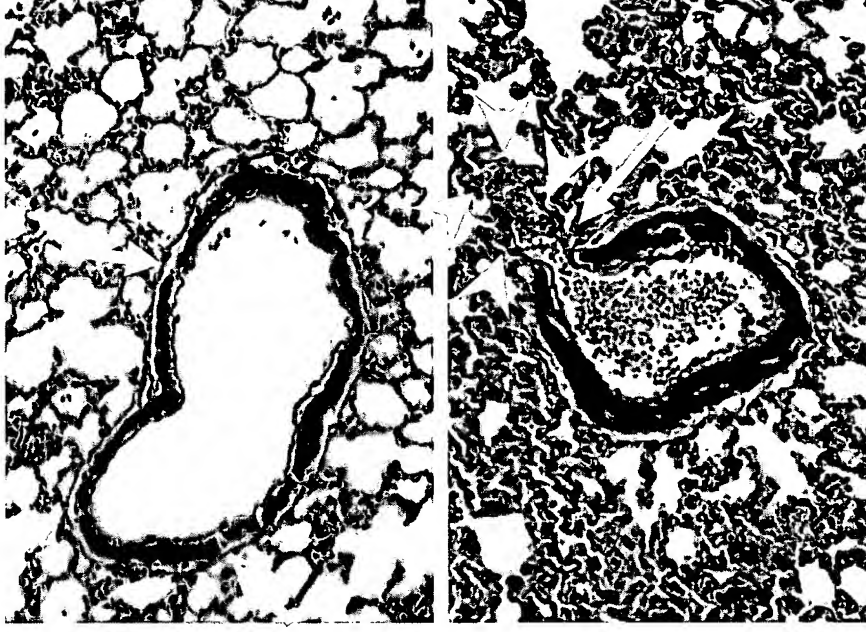
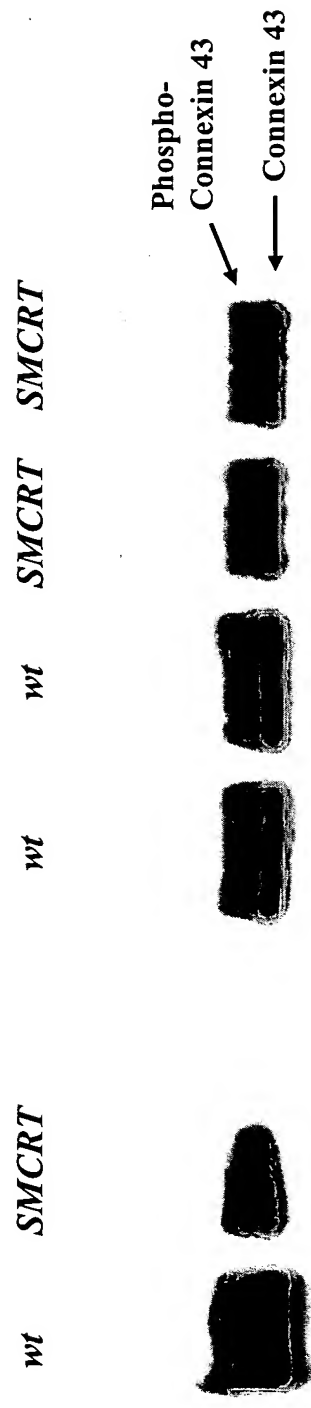


Figure 13- Masson Trichrome staining of lung sections of wild type (A) and SMCRT (B), showing the changes in the arteriole walls of the transgenic mice. Arrows (Green) indicates the disruption in the smooth muscle layer and migration of the endothelial cells thus developing a pouch containing red blood cells (lined by the arrow heads in B) which can lead to the formation of hemangioma.



**A. Smooth muscle cell lysate**

**B. Hearts**



**Figure 14-** Western blot analysis showing connexin 43 expression in the vascular smooth muscle cells (A) and hearts (B) isolated from the wild type and *SMCRT* mice. There was a significant decrease in the connexin 43 protein in the transgenic mice as compared to the wild type mice.

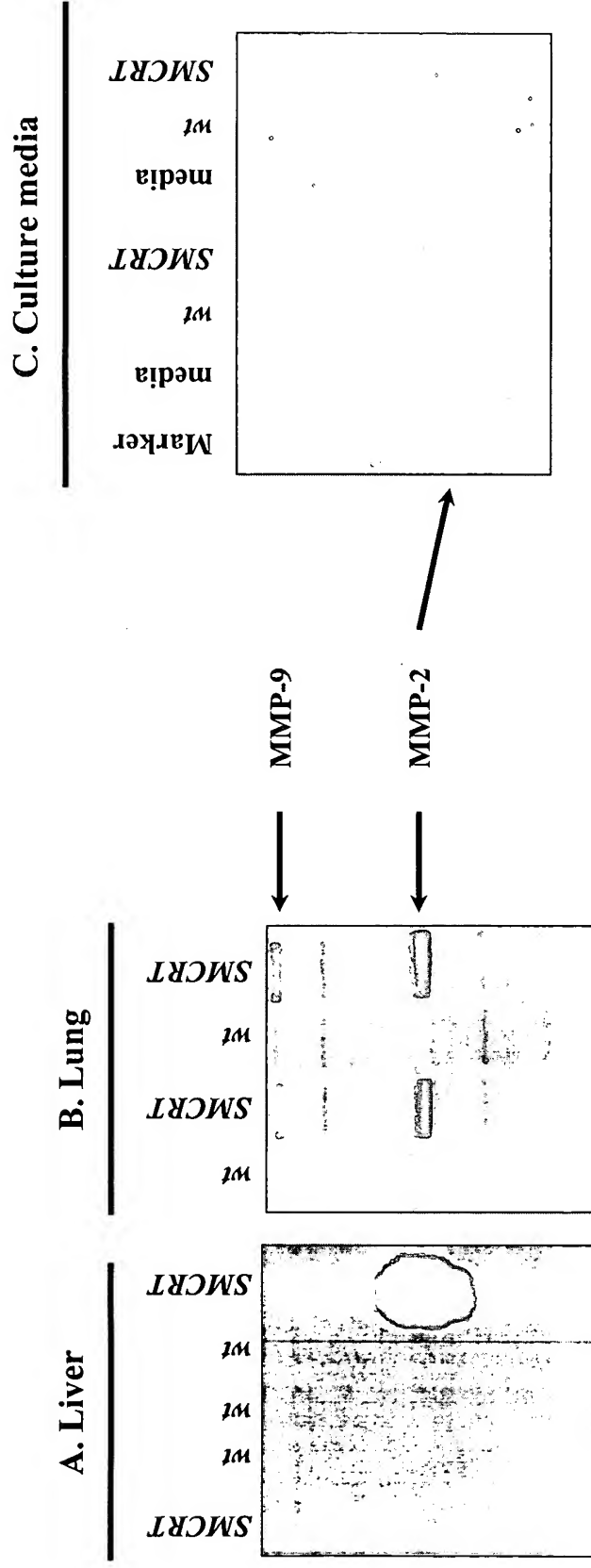


Fig. 15. Gelatin Zymography detecting the MMP-2 and MMP-9 activity in liver (A) and lung (B) tissue isolated from the *wt* and *SMCRT* mice. C) shows the activity of MMP-2 in the culture media from the *wt* and *SMCRT* smooth muscle cells detected by gelatin zymography. Briefly, cells were cultured in DMEM containing Insulin and transferrin for 24 hrs. 30  $\mu$ l of media from culture plate with no cells (Media), *wt* cells and *SMCRT* cells (or 30  $\mu$ g protein from each tissue) were separated on 7.5% SDS-acrylamide gel containing 1mg/ml Gelatin. After removal of SDS from the gel (to re-nature the proteins), it was incubated in zymography buffer overnight at 37°C. The gels were then stained with Coomassie Blue and de-stained. The white bands represent the activity of MMP in the sample.

## Figure 16

### Nucleotide and protein sequence of SM22 $\alpha$ -CRT

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```

# Figure 17

## Nucleotide and protein sequence of SM22 $\alpha$ -CRT-HA

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